

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CCXIV.

NEW SPECIES OF *CHROMOLAENA* AND *STEVIA* FROM BOLIVIA.

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Three previously undescribed species of Eupatorieae are represented in material collected in Bolivia by St. G. Beck working at the Herbario Nacional de Bolivia in the Instituto de Ecología, UMSA La Paz. The species of *Chromolaena* and *Stevia* are as follows.

*CHROMOLAENA* BECKII R. M. King and H. Robinson, sp. nov.

Plantae suffrutescentes late patentés ad 20 cm altae. Caules rubescentes teretes vix striati hirsuti. Folia opposita, petiolis 2-3 mm longis; laminae ovatae plerumque 1.5-2.5 cm longae et 1.2-2.2 cm latae base late rotundatae trinervatae margine 5-8-crenato-serratae apice obtusae vel breviter acutae supra planae et breviter pilosae subtus reticulato-prominulae dense glandulo-punctatae puberulae plerumque in nervis pilosulae. Inflorescentiae breviter thyrsoideo-paniculatae in ramulis subcymosae, ramis ultimis 1-7 mm longis ascendentibus pilosulis. Capitula 8-9 mm alta et ca. 3.5 mm lata cylindracea; squamae involucri ca. 25 appressae imbricatae 1.5-5.0 mm longae et 1.0-1.5 mm latae apice plerumque truncatae et minute erecto-patenter apiculatae extus tristriatae superne viridi-maculatae interiores purpurascentes dense breviter puberulae. Flores ca. 15 in capitulo; corollae superne violaceae 4.5-5.0 mm longae, tubis ca. 1.5 mm longis, faucibus ca. 2.5 mm longis extus glabris in canali fulvo-resiniferis, lobis ca. 0.8 mm longis et 0.5 mm latis intus dense papillois extus glandulo-punctatis sparse puberulis, pilis in cellulis apicalibus plerumque clavatis non glanduliferis; filamenta in parte superiore ca. 0.2 mm longa; thecae 1.7 mm longae; appendices antherarum ca. 0.4 mm longae et 0.2 mm latae; appendices stylorum dense papillosae. Achaenia ca. 2.7 mm longa plerumque in costis dense setulifera; setae pappi ca. 36 plerumque ca. 4.5 mm longae apice leniter latiores. Grana pollinis in diametro ca. 30  $\mu$ m.

TYPE: BOLIVIA: Santa Cruz: Prov. A. Ibañez, Santa Cruz ca. 22 kms. hacia Abapó (Sud). ca. 500 m.s.n.m. Chaparral abierto con cesped bajo. -20 cm. 14.3.1981. *St.G.Beck 6502* (Holotype, US).

The new species is close in leaf shape and position to *Chromolaena congesta* (H. & A.) K. & R. and *C. elliptica* (H. & A.) K. & R., but differs from both in the more truncate involucral bracts tips which are broadest just below the tip, and by the

reddish coloration of the inner bract tips. The first of the similar species differs further by the dense, more incurved, subtomentose pubescence and fine reticulation of the lower leaf surface. The second species, *C. elliptica*, differs most obviously by the decumbent habit and more elongate internodes and reduced leaves of the erect branches that terminate in the inflorescences. The heads are reminiscent of *C. ivaefolia* (L.) K. & R. but the involucre bracts are not as strongly appendaged and the leaves are broadly short ovate rather than lanceolate or linear.

STEVIA BECKII R. M. King and H. Robinson, sp. nov.

Plantae herbaceae erectae ad 0.8 m altae non vel paucae ramosae. Caules teretes pauci-striati brunnescentes sparse vel dense hirtelli. Folia opposita superne remotiora subsessilia, petiolis ca. 1 mm longis; laminae late ovatae plerumque 1.5-2.0 cm longae et 1.0-1.8 cm latae base late obtusae vel subtruncatae margine ca. 8-10-serrulatae apice breviter acutae supra planae subtus leniter reticulato-prominulae et vix subcarnosae utrinque pilosulae et glandulo-punctatae fere ad basem leniter trinervatae vel 5-nervatae. Inflorescentiae laxae paniculatae, ramis ultimis plerumque 5-10 mm longis dense stipitato-glanduliferis. Capitula ca. 8 mm alta; squamae involucri atro-purpureae ca. 5 mm longae apice argute acutae extus stipitato-glanduliferae. Corolla rosaceae in lobis pallidiores ca. 6 mm longae extus puberulae inferne et in lobis densius inferne et in lobis glandulo-punctatae; basi stylorum in cellulis subquadratis ampliatis distincte minute noduliferis. Achaenia ca. 3 mm longa dense scabridulae; adelphocarpi 4 in pappis 3-4-aristiferi, aristis ca. 4.5 mm longis; idiocarpi 1 in pappis omnino squamuliferi, squamellis 0.2-0.3 mm longis. Grana pollinis in diametro ca. 22  $\mu$ m.

TYPE: BOLIVIA: Santa Cruz: Prov. Florida, Santa Cruz 110 kms. hacia Cochabamba. 1550-1650 m. Vegetación alrededor de las ruinas de Samaipata. Hierba -80 cm., flor rosada. 23.3. 1981. *St. G. Beck 6777* (Holotype, US).

The new species has a distinctive lax inflorescence and subsessile broadly ovate leaves that are reminiscent of *Stevia parvifolia* Hassl., *S. anambayensis* B.L. Robinson, and *S. amplexicaulis* Hassl. of Paraguay. The three habitually similar species all differ by having 12-19 awns on all the achenes and by having few or no stipitate glands on the involucre bracts.

STEVIA POTOSIENSIS R. M. King and H. Robinson, sp. nov.

Plantae suffruticosae ca. 0.4 m altae multo ramosae. Caules teretes dense pilosi, internodiis plerumque ca. 2 cm longis; laminae ovatae 1-2 cm longae et 0.6-1.3 cm latae base rotundatae breviter trinervatae margine 5-7-crenato-serrulatae apice breviter acutae supra planae subtus leniter prominulae carnosius in punctis subimmersius utrinque dense pilosulae et glandulo-punctatae. Inflorescentiae in ramis terminales dense glomerulatae. Capitula ca. 1 cm longa; squamae involucri

plerumque virides ca. 5 mm longae et 1 mm latae apice breviter acutae extus dense stipitato-glanduliferae. Corollae purpureae in lobis pallidiores vel albescentes ca. 6 mm longae inferne et in apicem loborum dense puberulae sparse glandulo-punctatae; basi stylorum non noduliferi. Achaenia ca. 4.5 mm longa minute scabridulae superne pauca setulifera; idiocarpi 0-2 in pappis 1-2-aristiferi, aristis ca. 4 mm longis; adelphocarpi 3-5 in pappis omnino squamuliferi, squamellis ca. 0.5 mm longis. Grana pollinis in diametro ca. 25  $\mu$ m.

TYPE: BOLIVIA: Potosí: Prov. Bustillos, uncia 22 kms hacia Pocoata. 3800 m. Ladera rocosa con Cactus columnares. Hierba -40 cm, hojas pelosas, corola morada. 6.3.1981. *St.G.Beck 6153* (Holotype, US).

The new species is distinct by the combination of its dense branching, small ovate pubescent leaves, and dense inflorescences with stipitate-glandular involucre bracts. The species keys in the key to Bolivian *Stevia* by Robinson (1932) to *S. soratensis* Hieron. or *S. bridgesii* Rusby. The first of these differs by the less branched plants, and by the larger more triangular leaves with non-carnose reticulately patterned lower leaf surfaces. The second differs by the more setose pappus, and by the more lanceolate less densely glandular-punctate leaves. The corollas of the new species seem rather distinctive in the lack of puberulence outside on the throat and bases of the lobes but the density on the tube and lobe tips.

#### Literature Cited

- Robinson, B. L. 1932. The *Stevias* of Bolivia. *Contrib. Gray Herb. n.s.* 100: 36-69.



*Chromolaena beckii* R. M. King and H. Robinson, Holotype, United States National Herbarium. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



*Stevia beckii* R. M. King and H. Robinson, Holotype, United States National Herbarium.



*Stevia potosiensis* R. M. King and H. Robinson, Holotype,  
 United States National Herbarium.



Enlargements of heads. Top right: *Chromolaena beckii*; Top left: *Stevia beckii*; Bottom: *Stevia potosiensis*.